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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,561	03/29/2004	Gabor Devenyi	03W002	1383
7590 07/10/2008				
Raytheon Company				
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El Segundo, CA 90245				
EXAMINER				
JOYCE, WILLIAM C				
ART UNIT		PAPER NUMBER		
3682				
MAIL DATE		DELIVERY MODE		
07/10/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/811,561

**Applicant(s)**

DEVENYI, GABOR

**Examiner**

William C. Joyce

**Art Unit**

3682

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-5 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-26 is/are allowed.
- 6) ☒ Claim(s) 4-5 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to the amendment filed April 8, 2008 for the above identified patent application.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 4, 5, 17, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Neff (DE 198 31 940).

Neff teaches a screw device having a leadscrew follower (3), and a cylindrically shaped leadscrew shell (10), the leadscrew shell having an annular thickness of 1 to 20% the thread diameter. Accordingly, a screw device having a ratio of annular thickness of a shell to the thread diameter of 1% (.01) meets the claim limitation.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 5, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over at least one of Ogata (JP 6-264985) or Mizuno (JP 8-129938).

Ogata teaches a screw device having a leadscrew follower (2), and a cylindrically shaped leadscrew shell (5) formed on a leadscrew, the leadscrew shell having an annular thickness of 10  $\mu\text{m}$ .

Ogata does not teach the cylindrical diameter of the screw, however it was known in the art to vary the diameter of the screw in order to have a predetermined operating capacity. For example, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the screw of Ogata with a diameter of 25 mm in order to have a predetermined operating capacity and operating size. Accordingly, a screw having a diameter of 25 mm and an annular shell having a thickness of 10  $\mu\text{m}$  meets the claim ratio of annular thickness to cylindrical diameter in the range of .004 to .01.

Alternatively Mizuno teaches a screw device having a leadscrew follower (5b), and a cylindrically shaped leadscrew shell (8) formed on a leadscrew (5a), the leadscrew shell having an annular thickness of 5 to 13  $\mu\text{m}$ .

Mizuno does not teach the cylindrical diameter of the screw, however it was known in the art to vary the diameter of the screw in order to have a predetermined operating capacity. For example, it would have been obvious to

one of ordinary skill in the art at the time the invention was made to form the screw of Mizuno with a diameter of 25 mm in order to have a predetermined operating capacity and operating size. Accordingly, a screw having a diameter of 25 mm and an annular shell having a thickness of 10  $\mu$ m meets the claim ratio of annular thickness to cylindrical diameter in the range of .004 to .01.

Note, the limitation "electroless deposited" in claim 18 has been given limited patentable weight because an apparatus claim must define over the prior art in terms of structure and not the method of making the device.

***Allowable Subject Matter***

5. Claims 21-26 are allowed.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the screw shell M of Suzuki (JP 62-159852).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (571) 272-7107. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William C. Joyce/ 7/7/08  
Primary Examiner, Art Unit 3682